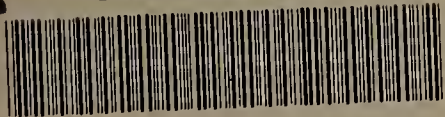


MASS. EA10.2:R24

UMASS/AMHERST



312066016275656

*An Action Plan
for the Urban Reach of the Connecticut River*

REDISCOVERING THE RIVER



GOVERNMENT DOCUMENTS
FEB 17 1987
UNIVERSITY OF MASSACHUSETTS
DEPOSITORY COPY

Prepared by:
Massachusetts Department of Environmental Management
in cooperation with
the Pioneer Valley Planning Commission
and the National Park Service

September 1987



Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Management

100 Cambridge Street
Boston
Massachusetts
02202

September, 1987

Dear Friend of the Connecticut River:

The enclosed Action Plan represents an unprecedented cooperative effort to chart the future of a very special region in Massachusetts -- the Connecticut River Valley.

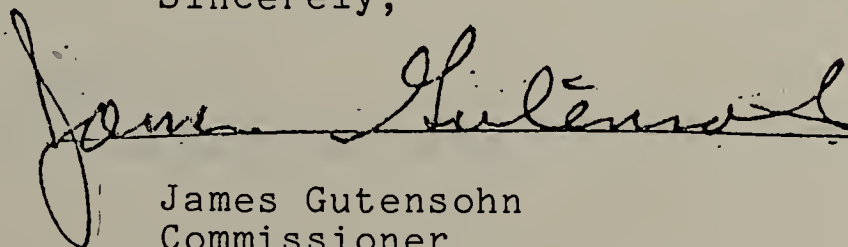
The Department of Environmental Management's Connecticut Valley Action Program worked with Holyoke, South Hadley, Chicopee, Springfield, Longmeadow, Agawam, and West Springfield as well as the Pioneer Valley Planning Commission and the National Park Service to develop the Action Plan, just as the Program has worked with communities further upstream to help plan for both public access to the river and protection of precious natural resources.

The Action Plan is significant because it is based on input from public officials, natural resource experts, developers, and local citizens. It advocates a sensible balance between riverfront development and preservation, and recommends specific actions to attain a variety of public purposes.

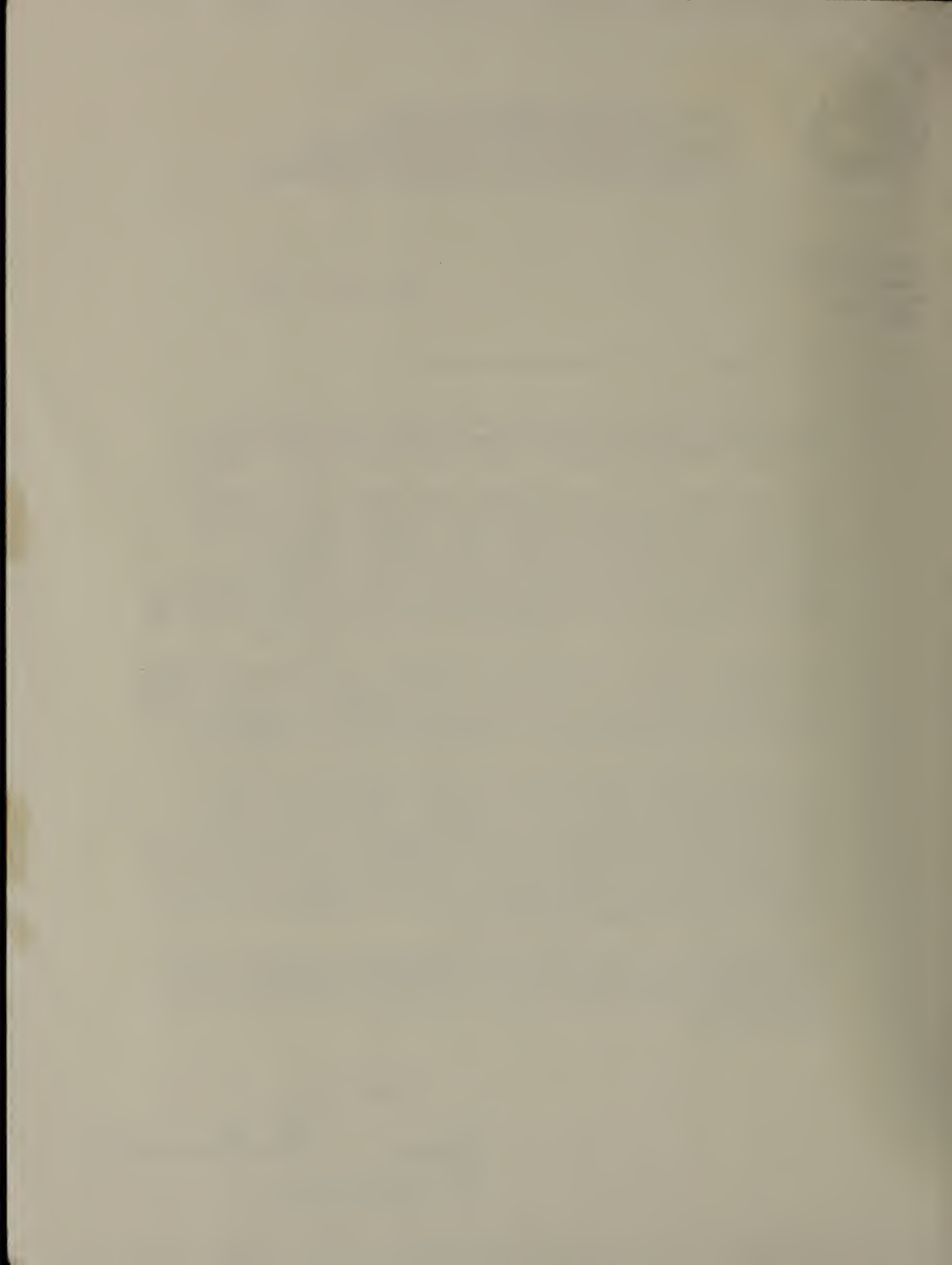
This program and other similar river corridor planning programs within DEM exist because of legislative bond authorization. DEM's river programs, such as the Scenic Rivers Program (authorized under Chapter 21, Section 17b of the Massachusetts General Laws), maximize state funds by augmenting state acquisition of special lands with planning advice and technical assistance to help communities shape their own river protection plans.

The Department of Environmental Management and the Pioneer Valley Planning Commission look forward to continuing this cooperative effort and stand ready to help implement this Action Plan.

Sincerely,



James Gutensohn
Commissioner



REDISCOVERING THE RIVER

*An Action Plan
for the Urban Reach of the Connecticut River*

September 1987



Prepared by:

Massachusetts Department of Environmental Management
100 Cambridge Street
Boston, Massachusetts 02202



in cooperation with the

Pioneer Valley Planning Commission
26 Central Street
West Springfield, Massachusetts 01089



and the

National Park Service
Mid-Atlantic Regional Office
143 S 3rd Street
Philadelphia, Pennsylvania 19106

with special assistance from
the University of Massachusetts
Department of Landscape Architecture and Regional Planning

Table of Contents

PART I: REDISCOVERING THE URBAN RIVERFRONT	1
Water Quality	2
Natural Resources	5
Cultural Resources	6
Recreational Opportunities	7
 PART II: ACTION PLAN	 10
Destinations	11
Access Areas	15
Linkages	16
Programs	17
 PART III: RECOMMENDATIONS	 19
Conclusion	30
 Acknowledgements	 31



Foreword

The Connecticut River Valley is endowed with a rich cultural legacy left by Native Americans and 17th century European settlers, and by writers and painters through the centuries. The Valley's farmland--the most productive in the state--dominates much of the landscape. Its villages retain their historic character with town commons and white-steepled churches. The Valley's cities and mill towns date back to the days when fortunes were made from water power. And the Connecticut River abounds with fish, birds, plants, and animals.

Recognizing the statewide significance of the region, the Department of Environmental Management, with assistance from the National Park Service, created the Connecticut Valley Action Program in 1984 to provide a framework for long-range planning and protection of natural and cultural resources throughout the nineteen Massachusetts communities which border the Connecticut River. Funded by a \$2 million legislative authorization, the program is an affirmation of the state's commitment to protect the Connecticut River Valley's beauty and uniqueness.

The Action Program seeks to ensure that the quarter of a billion dollar publicly-funded river clean-up results in maximum public benefits -- public access to the river, boating safety, wildlife habitat protection, preservation of scenic vistas, and appropriate treatment of historic artifacts and sites.

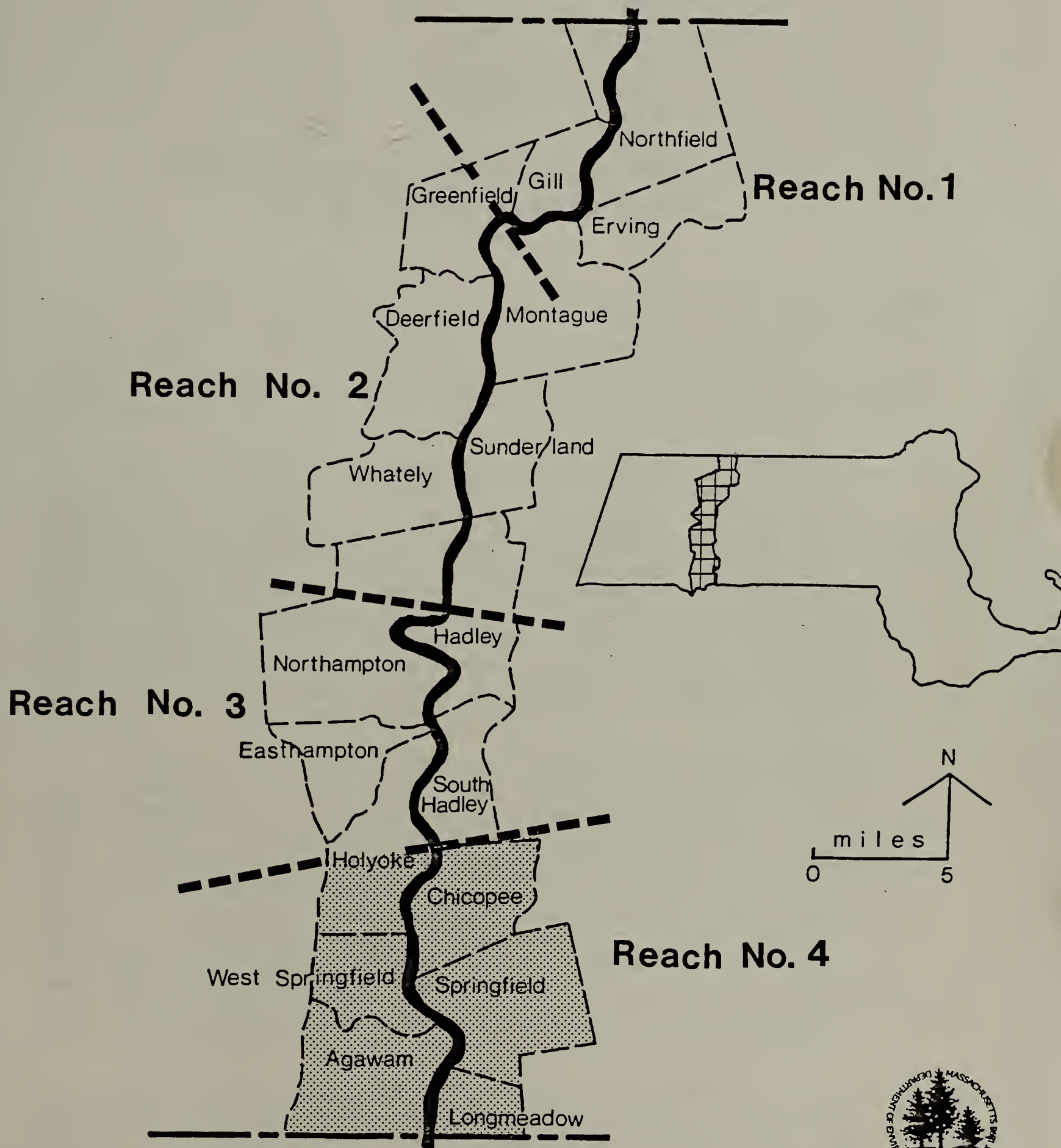
Over a twenty month planning period, from the fall of 1984 until the spring of 1986, the Action Program brought together local governments, regional planning commissions, non-profit groups, businesses, interested citizens, and other county, state, and federal agencies. The river corridor's most pressing issues were identified, and coordinated "action plans" for each section of the 68-mile Connecticut River in Massachusetts were begun.

The program has generated considerable public participation through its open meetings. A 33-member Coordinating Committee, including representatives from each of the riverfront communities and a range of agencies and interest groups, has been a crucial component in ensuring continued public input.

For planning and implementation purposes, the Connecticut Valley Action Program segmented the river into four "reaches," each with a distinctive character:

- Reach 1, the Upper River, begins in the north at the New Hampshire/Vermont border and ends at the Turners Falls dam. This area has a predominantly wooded shoreline, much of which is owned by Northeast Utilities, a large electric power company. Reach 1 includes the spectacular scenic area known as French King Gorge.
- Reach 2, the Natural/Recreational Section, extends from the Turners Falls dam south to the Northampton line. The water is shallow here and the shores are a combination of agricultural fields and woods. This is the most natural reach of the river and contains some of the most important fish and wildlife habitats.
- Reach 3, the Oxbow Section, continues as far south as the Holyoke dam. Deeper and heavily used by recreational power boats, this reach has a mixture of agricultural, wooded, and developed land along its banks.
- Reach 4, the Urban Riverfront, includes the heaviest population concentration along the river corridor in Massachusetts. It stretches from approximately the Holyoke dam to the Connecticut border.

The following pages focus on Reach 4, the southernmost, urban section of the river in Massachusetts.



Connecticut Valley Action Program

Part I:

Rediscovering the Urban Riverfront as a Regional Resource

The lower, urban reach of the Connecticut River includes three cities (Holyoke, Chicopee, and Springfield) and four towns (South Hadley, Agawam, West Springfield, and Longmeadow). These communities comprise the most populous region along the river corridor with a collective population of more than 350,000.

The seven urban riverfront communities demonstrate physical, cultural, and economic diversity which has, in turn, fostered diversity in the communities' approaches to planning. The "home rule" aspect of Massachusetts government has allowed them to follow independent paths regarding development and public access along their riverfronts. In effect, each community has viewed its own river frontage as the beginning and end of its river involvement. Despite their differences, however, the seven municipalities have begun to realize that the river offers a common link and a forum for discussing shared concerns.

On April 22, 1987, Connecticut Valley Action Program staff, members of its Coordinating Committee, community representatives, state natural resource experts, river users, and interested citizens met and agreed that a coordinated, inter-community approach to resource planning along the lower river would be valuable. All agreed to participate in a regional endeavor. Congressmen Edward Boland and Silvio Conte pledged their support and requested short-term assistance from the National Park Service's Mid-Atlantic Regional Office through that agency's State and Local Rivers Conservation Assistance Program, authorized under Section 11 of the Wild and Scenic Rivers Act (Public Law 90-542).

On May 5th, a cooperative effort, coordinated by the Department of Environmental Management (DEM), the Pioneer Valley Planning Commission (PVPC), and the National Park Service, was officially announced. In the weeks that followed there were numerous site visits, small committee meetings, boat excursions, and two public meetings in June. Graduate students in the University of Massachusetts' Department of Landscape Architecture and Regional Planning, under a contract with the Department of Environmental Management, worked through the spring of 1987 to conduct an

inventory of resources and to help develop a set of general recommendations for the reach.

The communities expressed their special concerns and detailed particular projects they would like to see accomplished. Staff from DEM, PVPC, and the National Park Service then began to weave all of the components into a cohesive regional action plan.

Overview of Reach 4

Because of its more urban character, this section of the river offers challenges and opportunities quite unlike those upstream. Instead of the large farmland tracts and undeveloped riverfront of the more northerly reaches, the urban reach has fragmented ownership and zoning patterns, intensive riverfront development, combined sewer overflow pollution, and flood control dikes, railroad tracks and highways which sever the river from the adjacent communities.

Despite these differences and obstacles, however, the river corridor here is as important a natural and recreational resource as it is further north. The communities involved in crafting this "action plan" have stressed their interest in increasing public access, developing parks, increasing water-based recreational opportunities, providing bikeways and walkways along the river, and protecting the region's special historical and cultural amenities along the river's edge.

Many of the resources along the lower reach of the river have significance at the state and national levels. They help make the river corridor eligible for special attention in the form of grants and government programs.

Water Quality

All of the communities share a concern for improving water quality. In the 1960s, the river below the Holyoke dam was grossly polluted by a steady stream of municipal and industrial wastes. Although rudimentary pollution control measures were being undertaken, the southern stretch of the river was essentially the equivalent of an open sewer. Solids, organic wastes, process dyes, chromium, lead, and cyanides were being discharged by industries. In addition, some untreated municipal wastes were entering the river

through combined sewer overflows and overloaded sewage treatment plants. Coliform bacteria was measured at more than 2000 times the state standard. Dissolved oxygen, essential for aquatic life, was almost totally absent from the river.

Twenty years later, more than \$333 million in public funds have been spent on municipal treatment plants and wastewater collection systems in Hampden and Hampshire Counties, almost \$66 for every man, woman, and child in the lower Connecticut River region. Private industries have also made substantial expenditures to clean up wastewater discharges. In Hampden and Hampshire Counties at least 22 industries have constructed their own wastewater treatment facilities at a cost of over \$22 million. Many other industries discharge waste to municipal wastewater treatment plants and must comply with standards for pre-treatment.

The northern and central sections of the river in Massachusetts now meet Class B (fishable/swimmable) standards, and the stretch of river below the Holyoke dam would meet Class B standards except for the notable presence of fecal coliform.

Inspections conducted in 1986 for PVPC and the Massachusetts Division of Water Pollution Control as part of the Combined Sewer Overflow (CSO) Study (The Connecticut River: Achieving the Fishable/Swimmable Goal) showed that 134 CSOs discharge raw sewage into the Connecticut River or its tributaries, the Chicopee and Westfield Rivers, during and after heavy rainstorms. Thirty-two of the outfalls discharge sewage even during dry weather.

The problem is caused by aging sewer systems that were purposely designed to carry both storm water and sewage, and to discharge excess flow during storms directly to the rivers. Recent inspections have shown that these problems are worsened by sewers which are clogged with sediment, have broken or stuck sewer regulator gates, undersized sewers, or other maintenance or design problems.

In addition to bacteria which make the river unsafe for swimming, CSO discharges adversely affect fish and wildlife, and create objectionable odors which generally undermine the aesthetic value of the river and its banks.

Despite the water quality problems, however, the lower reach of the river is rich in natural resources, historical and cultural resources, and recreational potential.



As of 1987, over \$1 million has been allocated for the ongoing Connecticut River CSO study. Both state and federal funds have been provided through the Massachusetts Division of Water Pollution Control. The Pioneer Valley Planning Commission is responsible for coordinating the project on behalf of the seven involved communities. The engineering firm of Metcalf & Eddy, Inc. has been retained for the project.

The CSO study is intended to provide an in-depth investigation of combined sewer overflows and their impact on water quality in the lower Connecticut River. It will also provide the seven participating communities (Springfield, Chicopee, Holyoke, West Springfield, Agawam, South Hadley, and Ludlow) with a cost-effective regional strategy for controlling CSO impacts. The strategy will be designed to meet the needs of the seven communities, federal water quality requirements, and the public's desired uses of the river. When the study is completed in late 1987 it will be up to the communities and the state and federal governments to decide whether or not the recommended solutions will be implemented. Public support and support from key legislators and officials will be crucial.

In February, 1987 the 100th Congress swiftly and overwhelmingly voted to override President Reagan's second veto of the \$20 billion Clean Water Act. This reauthorization should provide a boost to efforts to clean up combined sewer overflows on the Connecticut River.

Natural Resources

Although dubbed "the urban riverfront," the southernmost stretch of the Connecticut River contains a surprisingly rich natural environment.

The Connecticut has been a major focus of the anadromous fish restoration program of the U.S. Fish and Wildlife Service in recent years. Atlantic salmon and American shad hatch in fresh water, migrate to the sea, and return again to their home rivers to spawn. In the early 1800s, dam construction and water pollution all but eliminated salmon and greatly reduced shad in the river. Since 1965 an estimated \$75 million in federal, state, and private funds have been spent to construct fish passageways over dams, a major fish hatchery in Bethel, Vermont, and to support research programs. Over 480,000 shad passed over the Holyoke dam fishlift in 1985, one hundred times the number which passed over the dam thirty years earlier. In the 1987 season 345 salmon were captured for breeding purposes in the lower reach of the Connecticut River. In addition, about thirty-five resident species of fish, from walleyes to catfish, are found in increasing numbers in the ever-improving river.



John Suchocki Photo

The lower river is a part of the greater Connecticut River migration route for waterfowl as well as small and large shore birds such as egrets, herons, and sandpipers. Ospreys are also sighted in this reach.

Just above the Holyoke dam a quiet area known as Log Pond Cove provides a significant spawning habitat for American shad and blue back herring. These fish also move into the Westfield and Chicopee Rivers.

Just below the dam the Chicopee River confluence serves as a habitat for a variety of wildlife and plant species. Endangered American bald eagles have been observed using that area as a resting place, perhaps en route to the Quabbin Reservoir.

The Fannie Stebbins Wildlife Refuge in Longmeadow is a National Natural Landmark which encompasses 320 acres extending one and a half miles along the river's banks. It abuts 185 acres of town-owned conservation land. The area is ecologically complex and supports a range of natural habitats enhanced by the successional stages occurring on previously cleared lands. It is believed to be the largest tract of Connecticut River floodplain under permanent conservation protection. The Massachusetts Natural Heritage Program has identified two threatened species and one "species of special concern" at the Refuge.

The Agawam side of the river includes extensive parcels of agricultural land, such as the 245-acre Agawam Meadows, a rapidly vanishing resource along the urban riverfront.

The shallow waters off of Willie's Island, located between Agawam and Longmeadow, is a feeding area of the short nose sturgeon, federally classified as an endangered fish species. The sturgeon spawn just upstream in the fast water and pools below the Holyoke dam.

Cultural and Historical Resources

The Connecticut Valley holds a wealth of cultural and historical treasures. Dinosaur footprints have been found in many valley locations, and the complex geology of the region has been the subject of extensive research.

The Connecticut River has played a major role in the development of cultures from archaic times to the present. Native American peoples inhabited the valley for centuries, fishing in pools below the falls where the salmon and shad

congregated during their strenuous upstream journeys. Native American artifacts exist all along the river, although many significant sites have been lost over the centuries to farming and development.

The first European settlers in the region, led by William Pynchon, established themselves in Springfield in 1636. Pynchon shrewdly contracted with the region's experienced Native American hunters and set himself up in business as a fur trader, beginning a successful export business that utilized the river as its main transportation route.

In the early 1700s the region's first industries appeared: a paper mill in Springfield, a brickyard in Longmeadow, and a rum distillery in West Springfield. These were the forerunners. Between 1775 and 1830 the Connecticut Valley's population increased by more than 150%.

In 1777 General George Washington selected Springfield as a site for manufacturing and storing weapons, and seventeen years later Congress formally established a national armory. Until it ceased operation in 1968 the armory was a center for small arms storage, research, development, and manufacture, playing important roles in every war since the American Revolution. During the Civil War, in 1864, the Springfield Armory produced 1,000 rifles per day. The armory is now a National Historic site run by the National Park Service.

In 1794 a transportation canal opened in South Hadley, enabling boats to skirt the South Hadley Falls by means of a horse-drawn carriage up a fifty-three foot high inclined plane. Traces of the canal and tow path are still visible. It is believed to have been one of the earliest transportation canals in the nation.

The gun manufacturing technology developed at the Springfield Armory helped spur the region's paper manufacturing industries. Water power at the falls gave rise to mills in Holyoke and Chicopee. The Holyoke dam, completed in 1849, provided power for a planned industrial city in Holyoke with an extensive system of canals and mills. Raw material for lumber mills arrived in the form of log drives from up-river. The drives terminated at Log Pond Cove in Holyoke, just above the dam, where the logs could be corralled in calm waters away from the river's current. The Holyoke Heritage State Park, built along a downtown canal in 1984, commemorates the city's history as a paper manufacturing center, and brings to life the days when river-powered industry made Holyoke a giant among manufacturing capitals.

As demand for manufactured goods increased, first during the War of 1812 and then during the Civil War, the region's manufacturing output rose steadily. Springfield had become an important transportation center as the junction of two major railroad lines (Boston-Albany and Connecticut-Vermont), and Connecticut Valley goods had easy access to a national transportation network.

The first half of the 20th century was a dark chapter in the river's history. Heavily polluted by industry, the river no longer supported the fish populations which had flourished there for centuries. The water was unsuitable for recreational use of any kind, and the region turned its back to the river.

The great flood of 1936 resulted in the construction of protective dikes along the river, and thirty years later the construction of Interstate Route 91 joined the dikes and the railroad tracks in effectively severing the riverfront communities from their waterfronts.

The Clean Water Act of 1969 marked a turning point in the river's long decline, setting the stage for expenditures of more than a quarter of a billion dollars in water clean-up efforts over the last twenty-five years. This river clean-up, coupled with the recently-revitalized economy, has given impetus to the rediscovery of the river's importance to the region.

Recreational Opportunities

The Connecticut River above the Holyoke dam is one of the most intensively used bodies of water in Massachusetts. On a typical summer weekend day, more than 1,000 people may use the Northampton to Holyoke reach, in power boats, canoes, and fishing or swimming from the banks.

Below the dam, due to the perceived and sometimes real water pollution, recreational use is sparse -- less than 10% of the usage noted in the region just north.

An exception to this occurs during the shad run, during the months of May and June, when nearly half a million American shad congregate in their annual effort to migrate upstream to spawn. At such times the shoreline, especially near the Holyoke Water Power Company dam and along the lower Chicopee River, is crowded with fishermen jostling for available space in an attempt to catch these renowned game fish. The successful re-introduction of Atlantic salmon to the river also increases the level of interest in sport fishing in this section during May and June.

Interest in boating in the lower reach is slowly increasing. The Springfield Yacht Club in Agawam and the Pioneer Valley Boat Club have both experienced recent membership increases. Rowing, too, is a sport which appears headed for great popularity. The Springfield YMCA has successfully inaugurated a series of rowing classes which could grow even more if more shells and a boathouse were available. Motorboats are relatively scarce below the Holyoke dam due primarily to shallow water. One marina, at Jones Ferry in Holyoke, does berth about forty boats, but for the most part they are smaller vessels that can navigate within the lower water conditions of the Urban Reach.



SPRINGFIELD NEWSPAPER Photo by Dave Roback

Recreational use of all kinds -- sailing, rowing, motor boating, fishing, canoeing -- will undoubtedly increase as the rediscovery of the river continues. Extensive planning will be needed to match the most appropriate kinds of recreational uses to the river's capabilities. Without such planning, river recreational use will become chaotic and potentially dangerous, as is already the case in the river segment above the Holyoke dam.

Part II: Action Plan

Imagine this urban riverfront ten or twenty years hence: people camping, boating, picnicking at the river's edge; sailing and rowing lessons; summer concerts and festivals; people fishing and swimming; walking and bicycling paths that lead to historic sites, scenic overlooks, and commercial establishments. In this way, the river can once again become a focal point for community and regional pride.

Many riverfront opportunities exist today, but they are separate and disjointed, often disconnected from each other and underutilized. The intent of this action plan is to both initiate new projects and coordinate and unify existing ones based on a regional interest in a coordinated system of river access points and recreational programs. Some proposed actions will be relatively simple to accomplish, requiring only community interest and involvement. Others may require substantial state, federal, or private funding.

The components of the action plan include the following:

- (1) DESTINATION POINTS: (Parks, camp grounds, wildlife sanctuaries, riverfront retail development, scenic overlooks, farmers' markets, restaurants, or other places in which people will spend significant amounts of time.) These are areas which focus on the river and collectively help define and interpret the region's cultural and natural history.
- (2) RIVER ACCESS AREAS: (Boat ramps, boat houses, canoe launch areas, fishing sites, marinas, and boat club facilities.) Large or small, these sites will provide the actual physical connection between people and the water.
- (3) LINEAR CONNECTIONS AND LINKAGES: (Bikeways, walking paths, self-guided canoe trails, renovated or newly constructed walking bridges and overpasses.) On-river or along the shore, these will link the major destination points and provide "spurs" to other parts of the same community.
- (4) PROGRAMS: (Sailing, rowing, boating safety, "urban angler" and canoeing programs, festivals, concerts, bicycle outings, natural history tours, river races,

walking tours.) Such programs conducted at the locations described above can provide the basis for better understanding, appreciation, and enjoyment of the river.

The projects identified by the Connecticut Valley Action Program for this urban reach offer specific benefits for each community. They also collectively comprise a larger scheme which will benefit the entire region.

The Action Plan for the Urban Riverfront envisions these projects and programs working together as a system, linked by the Connecticut River itself, to provide recreational and economic opportunities for the people of the Connecticut Valley.

All seven of the urban riverfront communities fit into this picture. The large map included at the end of this report illustrates how these projects--both existing and proposed--relate to each other all along the river.

(1) Destinations

There are at least twenty-two major destination points along the river's urban reach. These are areas, either existing or proposed, which will draw people and hold them for a significant period of time. They include parks, campgrounds, riverfront commercial development, historic places, and wildlife areas.

Not all of these destination points have action recommendations in this report. Rather, the focus is on several key sites that are close to the river or its tributaries and have potential to provide the greatest benefit to the people of the region or to the river corridor's natural resources.

Holyoke:

Log Pond Cove: This 65-acre floodplain peninsula is an undeveloped riverfront property located less than 1 mile from Holyoke center. As a destination area it has been proposed as a wildlife sanctuary (southern end) and a day use recreation site (northern end). The area has significant historical value, as it was a terminus for logs driven down-river for conversion to lumber in Holyoke's mills.

Holyoke Historic District and Heritage State Park: Developed in 1984 by DEM as one of twelve special urban parks, HHSP serves as a catalyst for economic revitalization in downtown Holyoke and houses a museum celebrating the history of the people whose labor made Holyoke a paper manufacturing capital of world renown. The city's industries still utilize the century-old power canals which run through Holyoke's historic district.

New Dean Vocational School: Located on Lower Main Street in the southern end of the city, this new school property includes several hundred feet of Connecticut River frontage. Certain portions of the campus are planned for field games and recreational uses, but a curriculum for students interested in marine ecology and biological sciences could also be designed to utilize its riverfront location. A boating program is also possible.

Springdale Park: Although not currently used as a river-oriented park, this site is next to the river dike, and potential exists for a connection to other river areas.

Holyoke Water Power Company Fish Lift: Built in 1955, this "fish elevator" is the first in a series of important fish passage facilities for spawning shad and Atlantic salmon.

South Hadley:

The "Beaches": Locally significant as it contains extensive frontage along the Connecticut River, this area has the potential to be an excellent river-front park offering picnicking and shore fishing during the summer season.

Canal Falls Park: The site of one of the earliest transportation canals in the nation, this historically significant park includes the visible remains of the inclined plane canal which began operation in the late 18th century.

Historic Route 116 Bridge: This bridge is slated for replacement as it is no longer safe for vehicular traffic. However, the bridge could serve as a pedestrian/bicycle connection from South Hadley to Holyoke.

Chicopee:

Delta Park: This 22-acre city-owned property at the junction of the Chicopee and Connecticut Rivers is the site of an abandoned, massive brick power plant which is being seriously considered by a private developer for conversion into rental or condominium housing. Most of the land surrounding the building is wooded open space, which has excellent potential for park purposes. Additional city-owned lowland at the mouth of the Chicopee offers potential for trails, nature study, and fishing.

Nash Field: This is a six-acre city-owned playground adjacent to the Connecticut River. It offers parking and has potential for access to a nearby "Riverwalk" proposed by the city.

Springfield:

Riverfront Park: This city-owned area is often the site of various summer events such as concerts. The park includes a short riverside walkway and a small playground. As a destination point, Riverfront Park would greatly benefit from formalized connections to other points of interest in other communities.

F.L. Roberts Riverfront Project: This private development, now in the planning stages, proposes to ultimately develop twenty riverfront acres for commercial use, including retail stores, restaurants, overnight accommodations, and housing. The plans also include a boat house which would make these facilities accessible to and from the river.

Picknelly/Fargo Enterprises Development: This twenty acre site is proposed for 1100 residential units with a health club and boating facilities. It also includes considerable public open space and access to the river.

Basketball Hall of Fame: The game of basketball was invented in Springfield. This is a major tourist destination of national significance which has the opportunity to bring people to the water's edge.

Longmeadow:

Fannie Stebbins Wildlife Refuge and adjacent floodplain farmland. This 325 acre, privately-held wildlife habitat area is considered nationally significant for its outstanding ecological conditions.

Willie's Island: A three-acre river island located 200 feet from the Longmeadow shore, this site is a destination for area birding enthusiasts. The island's shallows on the Longmeadow side are considered valued habitat for endangered fish species.

Agawam:

Agawam Meadows: Located on the Westfield River, approximately half a mile from its confluence with the Connecticut, this site includes approximately 245 acres of floodplain open space. It contains large amounts of tilled farmland, extensive frontage on the Westfield River, remnant river-meander ponds, old river terraces, and some wooded upland.

Riverside Park: This is a privately-owned 85-acre amusement park. Although located right on the Connecticut River, the river does not play a significant role in the operation of the park or park activities at this time.

West Springfield:

Publicly owned riverfront land: This six-acre tract is located outside the flood control dike behind the Riverdale Road commercial/retail complex. Tentative plans call for a park, boat dock, and trails.

The "Big E" fairgrounds: The Big E is a major regional facility which draws thousands of visitors to West Springfield each autumn. It is located directly across the Westfield River from the aforementioned Agawam Meadows. Only the flood control dike separates it from the Westfield River.

Taken together, these destination points have the potential to provide activities to satisfy a wide range of interests. Some exist because of the river and others could be related to the river with very little effort. All could be drawn together with the river as a focus. The sections which follow explain how this can be done to form a system in which each component is complemented by the others.

(2) River Access Areas

In order to realize the river's full potential as a recreational resource, improved public access to the river is in order. New access areas are needed in some places, and in others existing facilities should be improved. Access areas, as used in this report, are not limited to boat launching ramps, but could include nearly any site which allows people to interact with the river for picnicking, wading, sunning, toy boat racing, fishing, or quiet contemplation. Some areas will be informal and require little more than foot paths, while others may have parking lots with boat trailer space, storage or other more detailed construction.

The existing access points include the following:

State boat ramps:

- Medina Street, Chicopee. Parking for 35 cars.
- DEM-owned Unimproved access area off St. James Street, Chicopee on the South Hadley line.
- Bondi's Island, West Springfield. Large parking area.

Commercial marinas:

- Jones Ferry, Holyoke. Docks for 40+ boats.
- Pepin's Boat Supply, Chicopee.
- Basset's Boat House, Springfield. City-owned land leased for private use.

Private boating clubs:

- Red Cliff Canoe Club, South Hadley.
- Springfield Yacht Club, Agawam.
- Pioneer Valley Yacht Club, Longmeadow.

Community-owned sites:

- Riverfront Park, Springfield.
- Pynchon Point, Agawam. Unimproved 3-acre site at the mouth of the Westfield River.

Suggested places for new or improved access areas:

- Canal Park site in South Hadley
- "The Beaches" site in South Hadley near the Chicopee line
- Delta Park area in Chicopee, at the mouth of the Chicopee River
- Log Pond Cove site in Holyoke
- Dean Vocational School in Holyoke
- F.L. Roberts riverfront development, Springfield
- Amtrak & Picknelly developments, Springfield
- City-owned land in West Springfield
- Agawam Meadows area along the Westfield River
- Robotaille site in Longmeadow (owned by Conservation Commission)

(3) Linkages

Although there are many destination points along the Urban Reach of the Connecticut, they have not been considered in aggregate as a riverine system. What is lacking, and what this section seeks to promulgate, is a convenient, interesting means of getting to these various places as part of a regional river-related experience. Emphasis here is placed on walking, jogging, bicycling, canoeing, rowing, and motorboating. The linkages emphasize the regional nature of the river -- city and town boundaries become less important and the river becomes more than merely the sum of its town frontages.

One important linkage recommended here is a regional bikeway/walkway. Chicopee, Springfield, Longmeadow and Agawam offer the best opportunities for locating such a route along or near the river, while West Springfield and Holyoke will most likely require a route following existing streets.

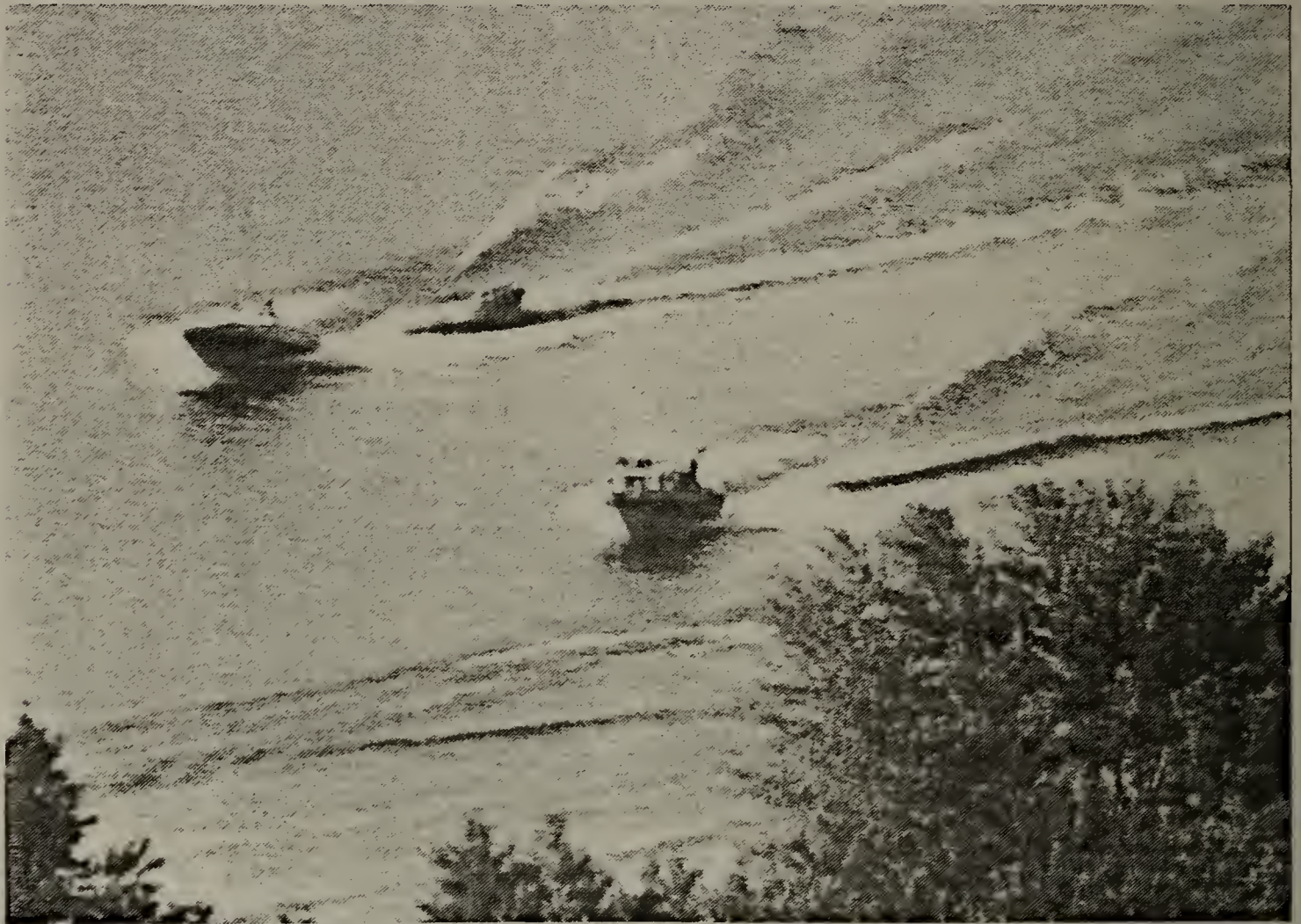
There are miles of flood control dikes paralleling the river's banks which were constructed by the Army Corps of Engineers in the late 1930s and are now maintained by individual communities. The Corps has given preliminary indications that use of the dikes for trail purposes is possible, as long as their integrity for flood control purposes is not jeopardized.

The presence of highways and railroads will complicate some of the inter-community connections, but the barriers are not insurmountable. Construction may be needed in some places, but in many others all that is really needed is a visually consistent system of signs to mark the route. Furthermore, the linkages need not be developed as a single effort. The most easily accomplished portions can be laid out first and opened for public use, and the remaining sections, particularly those requiring construction, may be added later.

The river itself, of course, is a primary continuous link, and one that is distinctly underutilized. With the improvement or addition of a few more access points, nearly all the major destination points could be tied together by a continuous band of navigable water. A self-guiding "river trail" can be developed for use by boaters of any stripe, with the river serving as a highway to get from one destination to another.

Informational brochures can be developed which inform the public about the linked system, indicating access points, major destinations, and other information. The existence of

such informational literature will further reinforce the public's perception of the river as a truly regional resource of extraordinary significance to the entire Connecticut River Valley.



(4) Programs

To utilize the river's major destination points, access areas, and linkages to their fullest, attention to programming will be important.

Programming can make use of the resources of local, state, and federal government agencies and can also rely heavily on private initiative and the cooperation of non-profit organizations.

Key players will undoubtedly include area YMCAs, Boys and Girls Clubs, Boy and Girl Scout troops, local parks and recreation departments, local and regional cultural organizations, local and regional historical societies, wildlife sanctuaries, local school systems, and area colleges.

The Department of Environmental Management can be called upon for regional parks management, and other government agencies, such as the state's Department of Fisheries, Wildlife and Environmental Law Enforcement, or the U.S. Fish and Wildlife Service can be called upon to lend their expertise.

Programming can include:

- historic walks and interpretation of historic sites;
- school curricula involving water testing, marine life study, and wildlife study;
- rowing, canoeing, and fishing instruction;
- concerts and festivals;
- bicycle tours;
- boat excursions;
- informational brochures, maps.

Part III: Recommendations

These recommendations weave the numerous destination points, access areas, linkages, and programs into a cohesive plan for the Urban Riverfront. This is not presumed to be the definitive plan, but rather is intended to provide a practical starting point. This action plan is aimed at "do-able" projects, using existing or attainable funding and manpower sources.

The actions recommended here are projects that can be accomplished within the next five to seven years. Some, if action is taken soon, can be completed in one year (indeed some efforts are already being initiated). Although the focus is on immediacy, longer range visions and goals are also presented. Some of the longer term projects will require further study or must await the outcome of currently proposed developments or the results of on-going investigations such as the Combined Sewer Overflow Study.

Recreational Use Study

The agencies responsible for resource protection in the lower river (DEM, PVPC, Department of Fisheries & Wildlife, DEQE, U.S. Fish & Wildlife Service) should collectively initiate an in-depth study of the recreational carrying capacity of the lower Connecticut River and make recommendations as to how to match recreational use to this capacity. Given the increasing number of proposals for private marinas, proposals for rowing programs, and the increased popularity of sailing and sail boarding, the kinds of boat use must be carefully calculated to prevent conflicting uses and overuse. Such a study should consider noise, safety, possible threats to anadromous fish and rare indigenous species, as well as the interests of shoreline users.

Regional Waterways Commission

The communities located below the Holyoke dam should form a regional Waterways Commission similar to ones being developed upstream under the aegis of the Connecticut Valley Action Program. With such a commission, each

community could collect fees generated from registration of boats. (Northampton, for example, collects \$4500/year; South Hadley receives nearly \$7000 annually.) These potentially substantial revenues could be used to fund river-related projects, such as installation of navigation buoys and hazard markers, or the printing and distribution of river charts and "river trail" maps for use by all kinds of boaters.

Water Quality

EPA administrators, state water pollution control officials, area legislators, community designees, and representatives of the congressmen should begin discussions shortly to determine the possibility of EPA Clean Water Act funding for final clean-up of the river. A report due out in December by the Pioneer Valley Planning Commission in conjunction with the Massachusetts Division of Water Pollution Control and the engineering firm of Metcalf & Eddy, Inc. is expected to recommend ways to address the combined sewer overflow problem. The recommendation will then form the basis for required action on the part of the involved communities in order to comply with EPA permit conditions. At present it is anticipated that much of Massachusetts' share of Clean Water Act money will go to Boston Harbor. However, work should begin now to secure either federal Clean Water Act funds or state Clean Water Act bond monies for the CSO projects on the Connecticut River.

Land Use Review

Funding resources should be secured to allow the Pioneer Valley Planning Commission to conduct a rigorous review of the land use patterns, policies, and regulations along the Urban Riverfront corridor. Working in concert with the cities and towns, recommendations should be developed to ensure that local land use policies and regulations are consistent with the regional goals and objectives outlined in this report.

Excursion Boat

A consortium of public and private groups should own and operate a "Sloop Clearwater" kind of vessel on the lower river which would serve both as a pleasure excursion boat

and as a "floating classroom" to teach children and adults about the river's ecology and urban heritage. The boat could be maintained by contributions, user fees, and the aforementioned waterways commission. The possibility of securing such a craft from the Federal Treasury Department (ATF Division) or other government surplus source should be investigated.

Map/Brochure

To engender an understanding of the regional continuity of the urban river reach, a detailed map/brochure providing information on historic walks, bike routes, river trails, and points of special interest should be prepared by the seven communities in collaboration with the Pioneer Valley Planning Commission, the Department of Environmental Management, area businesses, and tourist councils.

Regionally Consistent Signage

The Connecticut Valley Action Program should devise a visually consistent marking/interpretive/signage system to reinforce the regional nature of the urban reach. This would include standardized signs, river maps, and interpretive panels at access sites and recreational areas.

Regional Bikeway

The Department of Landscape Architecture and Regional Planning at the University of Massachusetts, in concert with DEM and the PVPC, should continue its investigation of a regional bikeway system linking the seven communities in the lower reach. Some of this work has begun as part of a graduate project using standardized signage on existing roads. In addition, the Pioneer Valley Planning Commission has published a study of potential bike routes.

Fish Restoration

The U.S. Fish and Wildlife Service should establish an educational program within the Urban Riverfront reach to explain the restoration of the Atlantic salmon and

American shad under the Anadromous Fish Restoration Act, in order to inform the public about the importance of these species and others, such as the endangered shortnose sturgeon.

Overview Committee

The overall Coordinating Committee of DEM's Connecticut Valley Action Program should appoint a standing sub-committee for Reach 4, the Urban Riverfront, to work cooperatively with other committees and agencies in the region to carry out the recommendations of this report. Such a sub-committee already exists informally as a result of this study, made up of representatives from seven communities. A number of the recommendations rely upon the existence of this body which can bring regional perspective to individual projects.

Inter-Agency Agreement

The Urban Reach should be considered as a prototype "urban greenway" in which the presence of a number of resource agencies -- acting in concert with the communities -- would provide resource management for the entire reach. Such a management approach would strengthen the region as a whole rather than leaving each community to deal with its own riverfront. DEM's Connecticut Valley Action Program can prepare a memorandum of understanding outlining the responsibilities of each entity, and the sub-committee detailed above will serve in an advisory capacity.

Site-Specific Recommendations:

Log Pond Cove / Holyoke

This area holds great potential as a day use camp area and wildlife sanctuary/nature study area. Northeast Utilities has indicated willingness to make the 65-acre site available for these purposes, and the Greater Holyoke Boys and Girls Clubs have secured the professional design services of Berkshire Design Associates.

- The City of Holyoke should work with DEM to secure state funds to design and construct an appropriate access bridge over the railroad tracks. Prefabricated pedestrian bridges used in similar situations elsewhere are available for approximately \$100,000.
- The city, in conjunction with the Boys Club et. al, should also seek federal assistance which is currently available for facilities that provide for disadvantaged children and handicapped access.
- Holyoke Heritage State Park could develop a walking tour of Log Pond Cove as part of the park's on-going interpretation of the history of Holyoke. Holyoke Heritage State Park is just a short walk from Log Pond Cove.

Historic Canal / South Hadley

The Town of South Hadley has nominated the South Hadley Falls Canal for listing on the National Register of Historic Places. The canal was conceived in 1792 and completed in 1795, making it one of the first in the United States. It is also one of the earliest to use an inclined plane to move boats around a falls or rapids.

This report recommends that federal and state funds and assistance be sought for a study to determine the cultural and historical significance of the South Hadley Falls Canal and to make recommendations as to how this canal and associated historic buildings might be interpreted and managed. The study should also determine which recreational uses might be compatible with management of the canal as a historic resource.

In addition to the historical aspects of Canal Park, there are passive recreation opportunities to be realized:

- a low cost, low maintenance access area for light, carry-in boats should be provided by DEM or the state Public Access Board above the existing overlook deck. DEM can provide an informational panel with a map and boating regulations similar to those it has provided in other river locations, through the Connecticut Valley Action Program.
- the VFW lot across from the park should be acquired for conservation purposes through a joint local/state cost sharing project. This seven acre site (which includes

a pavilion and a large brick building) would serve as a town recreation area and could provide for future use as a museum, visitor center, and/or administration building.

Although the South Hadley Falls Canal Park Committee has entertained a proposal to reconstruct the inclined plane and develop a functioning canal system (estimated cost \$18 million), this report recommends that the canal area be historically interpreted and utilized for passive recreation in a more modest fashion, as outlined above, thus avoiding deleterious dredging, private land takings, and the possible destruction of the authentic canal remnants and artifacts.

Pedestrian Crossing / South Hadley-Holyoke

The Route 116 iron bridge, believed to have historical significance, is currently slated for replacement. The proposed new bridge should be designed to provide a pedestrian and bicycle link between South Hadley and Holyoke. The present bridge could be evaluated for retention as such a pedestrian link as part of the design process. A cultural history walking/biking trail map utilizing one of these bridges could be prepared noting the connection between South Hadley Falls Canal Park, the Holyoke Water Power Company fish lift, Holyoke Heritage State Park, Log Pond Cove, and Holyoke's canal system.

The Beaches Access / South Hadley

The town of South Hadley should consider a joint management agreement with the Department of Environmental Management for the riverfront area known as "the beaches." DEM manages an adjacent access site in Chicopee. The combined areas would provide better public access and would link Chicopee and South Hadley Falls Canal Park and the iron bridge. DEM should then improve the site(s) and provide informational panels to interpret the area, including educational material about the river.

Dike Walkways / Chicopee

- A series of walking trails designed by the city of Chicopee should be implemented quickly with assistance from the U.S. Army Corps of Engineers and others. A 2-1/2 mile walk along the top of the Army Corps flood control dike extends from within a mile of the DEM launch site noted above all the way south to the mouth of the Chicopee River. It is recommended that Congressional authority be sought for the U.S. Army Corps of Engineers to develop a prototype trail system using flood control dikes. The flat topped dikes are often abused by trail bikers and all terrain vehicle users whose activities tear up the structures and damage their flood resistance. Experience indicates that increased use by bicyclists and walkers will displace motorized uses and would thus serve to secure the structure's flood resistance while providing a highly popular, low impact recreational use.

- This study further recommends connecting the City of Chicopee's proposed dike walk with the South Hadley canal. These two proposed trail segments could be connected by extending the trail on the Chicopee dike northward, crossing land owned by Northeast Utilities until the canal right-of-way is reached. Most of the canal right-of-way is also owned by Northeast Utilities.

- Dikes also exist in Holyoke, West Springfield, and Springfield. While they may not provide a continuous system right away, they can serve as the basic framework for an urban walkway network. The details of Chicopee's plan (known as "Chicopee Walks") are recommended as a guide for these other communities. Chicopee should supply copies of the "Chicopee Walks" document to the Army Corps of Engineers, and other communities in Reach 4 having similar U.S. A.C.E. flood dike systems.

Medina Street Boat Ramp / Chicopee

The state should provide concrete benches to encourage pedestrian use at the Medina Street public boat ramp in Chicopee, which serves as the access point for the previously mentioned "Chicopee Walks" program. Concrete and steel posts are also recommended here to prevent vehicular access to the dike walkway.

Chicopee River Confluence / Chicopee

The City of Chicopee should ask the U.S. Soil Conservation Service, the Department of Environmental Management and the Mass. Division of Fisheries and Wildlife for technical assistance in improving wildlife and scenic aspects of the city-owned 60-acre tract of woods and wetland at the mouth of the Chicopee River. This area will experience increased usage as a result of improved shad migrations and access for fishermen. Because the Chicopee River is becoming an increasingly important shad fishery and is a potential salmon river, this report recommends that dredging in the lower portion of the river be discouraged. Technical assistance provided by the agencies should also include a review of the severe low flow conditions presently existing on the lower Chicopee River.

Flood Wall Restoration / Springfield

It is recommended that the City of Springfield apply as soon as possible to the Department of Environmental Management's Division of Waterways for funding to determine the cost and feasibility of repairing the city's granite flood wall.

Riverfront Development / Springfield

The city should continue to explore federal, state, and private resources to acquire and develop quality riverfront access for the general public. Current private development proposals for the riverfront provide a unique opportunity to secure a wide range of water-based amenities:

- A visitor center should be developed at the riverfront. The city should request that DEM and the National Park Service investigate the feasibility of developing and/or managing a visitor center, possibly as an adjunct to the Springfield Armory National Historic Site. This center should focus on the numerous events and innovations originated in Springfield which have regional or national significance and should also serve to introduce visitors to the river and the valley.

- The city should reclaim its preeminence in the area of collegiate rowing. The resurgence of interest in rowing for both competition and fitness can only be accommodated if there are appropriate facilities at the water's edge

for the storage of boats. In addition, the recreational carrying capacity of this reach of the river must be carefully evaluated to prevent rowing and power boating from coming into conflict. (See earlier recommendation). The city should continue to cooperate with DEM in exploring the possibility of a public boat house and rowing program administered by the Springfield YMCA.

- The city should require that every private development proposal for the riverfront provide, to the greatest extent possible, continuous improved public access along the water's edge. Such public amenities as walkways, bikeways, scenic overlooks, parks, water access, and parking should be included as conditions for development.

- Growing competition for limited public bikeway funding requires that each proposal be judged upon its continuity and regional significance. Successful bikeway proposals have demonstrated a high degree of inter-town cooperation. Springfield should cooperate with both Chicopee and Longmeadow to develop a regionally significant bikeway proposal.

Urban Angler Program / Springfield

The City of Springfield and the Division of Fisheries and Wildlife should investigate the potential for establishing an "Urban Angler" program for inner city children, teaching fishing and river lore. The city should also consider contracting with nature education centers (Massachusetts Audubon Society sanctuaries in Hampden and Easthampton, Hitchcock Environmental Center in Amherst, etc.) to develop programs which would use the river as a teaching tool to instill in city youngsters a greater appreciation of the natural and riverine environment.

Wildlife Sanctuary / Longmeadow

The U.S. Fish and Wildlife Service should be requested to investigate the possibility of managing the Fannie Stebbins Wildlife Refuge as a unit of the National Wildlife Refuge System.

Consideration should also be given to establishment of an environmental center to begin an education program for teachers in the Urban Reach. Coordination with existing programs at area Audubon sanctuaries and colleges should also be considered.

The Tinicum National Environmental Center in Philadelphia is a possible model for such an urban wildlife refuge and educational center. The Center, which is operated by the U.S. Fish & Wildlife Service, works cooperatively with the Academy of Natural Sciences in Philadelphia to educate public school teachers about the marsh's unique natural systems and the wildlife that it sustains. Students are then taught in the classroom and brought to the outdoor classroom setting at appropriate times.

River Access / Longmeadow

The Robataille property, owned by the Longmeadow Conservation Commission, should be the subject of a town meeting article to fund improvements for car-top boat access for town residents.

The Town of Longmeadow, in concert with the U.S. Fish & Wildlife Service, DEM, and other agencies, should work to acquire any remaining large tracts of floodplain farm land in Longmeadow. Much of this land is covered by

Chapter 61A which grants the town the right of first refusal on agricultural property. That right can be transferred to other entities.

Willie's Island / Longmeadow

Acquisition of Willie's Island should be investigated by the Mass. Division of Fisheries & Wildlife or considered as an addition to the Fannie Stebbins Wildlife Refuge. It should remain in its undeveloped state as wildlife habitat. Because of its small size all parts of the island are subject to the state's wetlands protection act.

River Frontage /Agawam

The Town of Agawam, the Hampden County Commission and the Mass. Department of Public Works should request that DEM take over most of the mile-long sliver of riverfront land along River Road (below the South End Bridge) for use as a partial bikeway link and to provide shoreline passive recreation and canoe access.

Agawam Meadows /Agawam

Agawam Meadows, 250 acres of floodplain forest and tilled farmland should be acquired by state agencies (DEM and DFW) for conservation/open space/park purposes. Appraisals have already been discussed by these agencies in contemplation of acquisition. If state acquisition takes place, the extensive Westfield River shoreline would offer river access for small boats, and a small three-season camping area could be developed. Much of the acreage should be leased back to local farmers if possible, to keep the area open and agriculturally productive. Old river terraces and wetland habitats at the meadows ponds should be retained in undisturbed condition for archaeological study and for wildlife habitat. State open space bond funds could be used for this acquisition.

Pynchon Point /Agawam

The town of Agawam should consider requesting state assistance to manage the Pynchon Point access area. Issues such as illegal dumping need to be addressed.

River Frontage / West Springfield

The Town of West Springfield should explore options for river frontage. The town should request that DEM provide assistance in acquiring and developing riverfront land behind the Riverdale Mall for passive recreation.

Educational Access / Holyoke

The Dean Vocational School, currently under construction in Holyoke on the Connecticut River shore, should include the following:

- a designed public river access point and accommodations for limited day use (picnicking, fishing);
- a curriculum for river-based vocations (boat engine repair, water treatment plant operation, small boat design and construction, navigation, riverine biology, water testing, etc.);
- a lab boat for conducting experiments on river. This might be secured from federal agencies, e.g. surplus or confiscated vehicles.

Conclusion

The largely successful clean-up of the lower Connecticut River has in effect provided a clean slate -- an opportunity to rediscover the river. The potential benefits, secured at great public expense, must not be lost for lack of cooperative planning.

Given the potential conflict between development pressures and the growing public demand for additional recreational access, the public and private sectors have a special obligation to balance environmentally sensitive development with public access to the river.

The recommendations presented here reflect the thoughts of numerous citizens, government and business leaders, natural resource experts, and educators who have worked closely with DEM, the PVPC, and the National Park Service to provide the framework for this cooperative effort. Tremendous potential exists to build a strong regional constituency for the lower reach of the Connecticut River. The public/private partnership which has begun with this study must continue.

Acknowledgements

The Department of Environmental Management, the Pioneer Valley Planning Commission, and the Mid-Atlantic Regional Office of the National Park Service wish to acknowledge the contributions of many people who willingly offered their time, support, and advice in the development of this report.

John Burnett, W.Springfield Rep., CT Valley Action Program
Jeff Campbell, Springfield Rowing Club
Phil Chesky, Holyoke Parks & Recreation Department
George Counter, Holyoke School Department
Herm Covey, Mass. Dept. Fisheries & Wildlife
Deborah Dachos, Agawam Town Planner
Robert Fowler, Greater Holyoke Youth Camping, Inc.
Kate Griffin, Chicopee Office of Community Development
Elinor Hartshorn, Springfield Riverfront Develop. Commission
Joseph Henefield, F.L.Roberts, Inc.
John Higgins, Mass. DEQE
Richard Joseph, Agawam Rep., CT Valley Action Program
Seth Kellogg, Allen Bird Club
Mike Laverdiere, Holyoke Planning Department
Jean Kidwell, Chicopee Office of Community Development
Eleanor Klepacki, So. Hadley Falls Canal Park Committee
Henry Kozloski, Agawam Conservation Commission
Joseph Laplante, W.Springfield Community Development Office
Ken McLaughlin, Springfield YMCA
Rich Morrassi, Agawam Asst. City Solicitor
Dorothy Nelson, Agawam City Council
Tom Nicoletti, U.Mass. Regional Planning Department
Jim O'Connell, Springfield Redevelopment Authority
Robert O'Malley, So. Hadley Rep., CT Valley Action Program
Linda Petrella, Springfield Planning Department
Nancy Rogers, Longmeadow Conservation Commission
Robert Schwartz, Fargo Enterprises
Robert Spaulding, W.Springfield Town Planner
Linda Strong, South Hadley Town Planner
Laurie Swadba, Springfield YMCA
Rudolph Szady, Springfield Yacht Club
Stan Tenerowicz, Springfield Rep., CT Valley Action Program
Charlie Tracy, Chicopee Office of Community Development
Colleen Withcott, Longmeadow Conservation Commission

